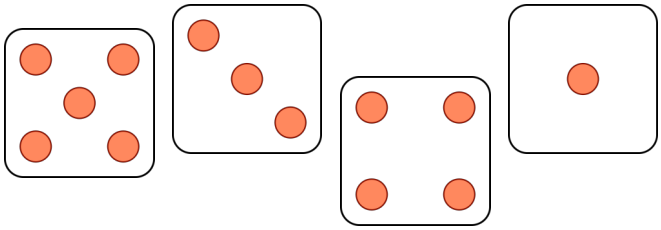
The “Statistics Mode” (STAT) contained in most modern calculators is a valuable tool for students of statistics.

When used correctly, STAT mode allows users to perform calculations faster and with greater accuracy. However, whilst STAT mode can be an incredibly useful addition to your statistical skill set, it must be used with caution. In an exam setting, lecturers often want students to show working, so it is important to understand the formulae behind the shortcuts.

Think of using STAT mode as an option when double checking your work or correcting a typing error. The following example illustrates how you might use STAT mode in practice.

<u>Using STAT mode</u>

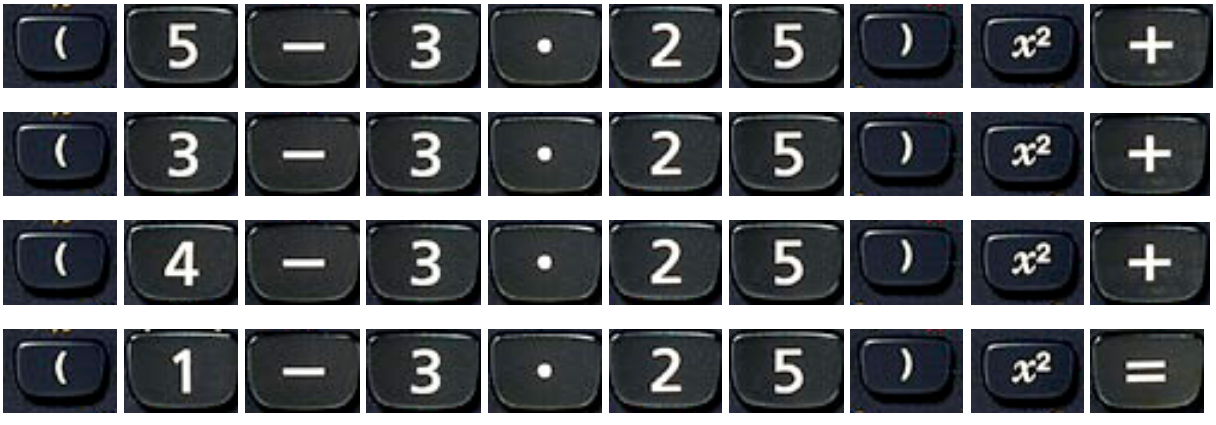


Method 1: Complete manual entry

To calculate the sample mean, $\bar{x}$, type:

3.25

And what about the sample standard deviation, s?



2.916666667

1.707825128

Method 2: "Answer Memory"

The sample mean, $\bar{x}$, would be calculated in the same way as before:

3.25

At this point, the number 3.25 is stored in Answer memory (accessible by pressing the "Ans" key).

The number 3.25 will stay in answer memory until the equals key is pressed again.

To calculate the sample standard deviation, *s*:

2.916666667

1.707825128

Method 3: "STAT" Mode[1]

"STAT" mode is entered by pressing the following keys:

Entering the sample data one at a time:

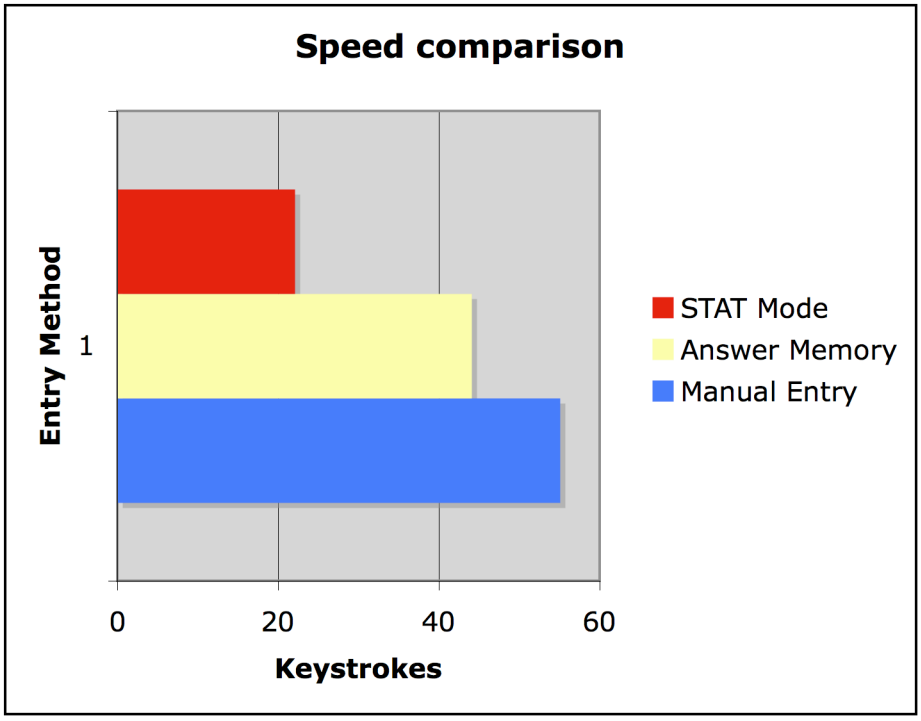
There is immediate access to a variety of statistics. To get the sample mean, $\bar{x}$:

3.25

[1] A CASIO *fx-82AU PLUS* was used in this example.

And for *s*:

= 1.707825128



STAT mode is the fastest and most efficient entry method.

However, remember that showing the process in getting to a final result can be more important than the result itself.

Need more information? Make an appointment with the ASLC maths/stats adviser.